Engelmann (Geo. J.)

Two Cases of Anterior Displacement of the Ovary, simulating Inguinal Hernia; Battey's Operation

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TWO CASES OF ANTERIOR DISPLACEMENT OF THE OVARY SIMULATING INGUINAL HERNIA; BATTEY'S OPERATION.

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St. Louis.

Two interesting cases of anterior displacement of the ovary have recently come under my observation. I wish to bring them to the notice of this Society, since the affection is a rare one, and usually ignored; yet we may well give more than a passing thought to this condition which, although apparently of but little import, is so appalling in its consequences, so ruinous to the mental and physical organization of the unfortunate sufferer. The two cases seen by me were almost identical, revealing similar symptoms and similar pathological changes; one was still in the earlier stages, whilst in the other the disease had existed for many years. A fully developed melancholia existed in the latter case, while in the former, in which the displacement of the ovary was of comparatively recent date, the symptoms of mental derangement were but beginning to make their appearance. This case is the more valuable and interesting, as I was enabled, during the operation for the extirpation of the displaced ovary, to satisfy myself thoroughly as to the anatomical relation of the parts.

Although the dislocated ovaries simulated inguinal hernia at times, this was only the case during the period of menstrual engorgement; then a "lump" was visible in the inguinal region, but at no time in the inter-menstrual period, unless after long standing, which was always painful.

It will be needless for me to enter upon the consideration of retro-displacement of the ovary, since this subject has

been so fully and so ably treated by my friend Dr. P. F. Mundé, in his paper read before the last meeting of this Society in Baltimore, in September, 1879. Dr. Mundé, although treating of prolapse of the ovaries, has really confined his paper to the retro-uterine displacement or retro-lateral displacement of the ovaries into Douglas' pouch; the much more rare affection, the anterior displacement, is only hinted at. The literature is scanty and, such as it is, fully compiled in Dr. Mundé's paper. I can find but few monographs, and the little the text-books have to say of prolapse of the ovary is almost exclusively devoted to the retro-uterine displacement of the organ; let us see if in their general features, causes, symptoms, and treatment, the two forms of displacement can be so completely blended.

Dr. Mundé says: "I have been able to find but one other, besides Barnes and Schroeder, who thinks that displacement of the ovary should be considered as a separate affection, occurring at times primarily and without preceding inflammation and enlargement, and that it is to be considered as congenital, and that others so regarded it as long ago as 1850." He speaks of the dislocation of the ovary occurring with retroflexion, and of the fact that it especially expresses itself by intense neuralgia, violent pain during defecation, or on moving the uterus with the finger, or pressing on the prolapsed organ through the rectum. In fact, the little that is said upon the subject bears entirely upon retro-displacement. The anterior displacement is scarcely ever referred to, and where it is mentioned is passed over with but a few words, so that I may say I find no author to whom I could refer, no literature upon the subject. Thus: Graily Hewitt ignores it; Thomas accords it only a few lines; Barnes and Schroeder mention hernia of the ovary; that is, an *extra*-pelvic displacement, usually congenital, occasionally occurring during the puerperal state, but they say nothing about an anterior *intra*-pelvic displacement. Dr. Mundé, who cites seventy-seven cases of prolapse of the ovary, says that all but two of these were cases of posterior displacement; the two anterior dislocations were re-

corded, yet nothing is said about them. Some remarks were made by Dr. Skene upon this subject at a meeting of the New York Obstetrical Society (held November 5, 1878), which were published in the "American Journal of Obstetrics," in April, 1879 (page 342). A paper was also read upon Prolapse of the Ovary, a retro-displacement being noticed in several cases, before the Central New York Medical Society in the past year, yet nowhere is the anterior displacement considered.[1]

I will confine myself, in this paper, strictly to the discussion of my two cases of *anterior intra-pelvic* displacement of the ovary, and will dwell with a few words upon the extirpation of the displaced ovary, practised with apparent success in one of them — as every case of Battey's operation is of interest while the operation has not yet received its proper place and is still *sub judice.*

CASE I. — *Anterior displacement of the left ovary, at times simulating beginning inguinal hernia; caused by a fall; anteflexion, dysmenorrhea, Battey's Operation.*

The patient, Susie C., is an American girl, twenty-four (24) years of age, a servant and single, very much emaciated, with a haggard, unsteady look, impaired digestion, and evident tendency to melancholia. She was in fair health until her seventeenth year, when she first menstruated; from the beginning the flow was scanty and accompanied with severe pain, especially in the left side. It is now five years ago since her health began to fail; from the time she was nineteen she has complained more or less, but the beginning of those terrible ordeals — of her mental and physical weakness — she dates to a fall or jump from a second-story window two-and-a-half years ago. The suffering at the

[1] To the papers already referred to, I will add some of the most recent articles which have lately appeared. Byford, "Displacement of the Ovary," *Boston M. & S. J.*, p. 433, 1880. Lyman, "Prolapse," *Boston M. & S. J.*, p. 319, 1880. Thomas, "Chronic Ovaritis," *M. & S. Reporter*, xlii., p. 160, 1880. Colvin, "Prolapsus of the Ovaries," *Buffalo M. & S. J.*, xix., p. 285, 1880. Lorinser, "Ein Fall von Oophorocele inguinalis sinistra," *Wien. Med. Wochenschrift*, xxx., p. 92, 1880. Chambers, "A Case of Congenital Double Inguino-ovarian Hernia," *Obst. J. Gr. Brit.*, vii., p. 579, 1879–1880.

time of the menstrual period, always severe, was greatly intensified during the sickness following this fall. Then, for the first time, she noticed a painful swelling in the left side, this "lump," as she calls it, which has been a source of the greatest misery to her ever since.

The right side is free from pain, whilst the left is always more or less tender, exquisitely sensitive during the period of menstrual congestion; and at this time only is the lump to be observed, although it may sometimes be forced down and become prominent after long standing, or by forced coughing; but as the physiological engorgement takes place in the pelvic viscera, a few days before the flow, this exquisitely sensitive swelling — this "lump" — makes its appearance in the groin, in the region where we would expect to find incipient direct inguinal hernia; then she can scarcely walk and is often forced to remain upon her bed for days, as the presence of the "lump" prevents her from straightening the left leg. At no time can she wear tight-fitting clothing, as she always feels bloated, mostly so at the time of the sickness, when it becomes a source of great annoyance to her. Her appetite is variable, sometimes it is ravenous, but generally poor. For days at a time she eats nothing at all. The bowels are usually costive, though for ten days before the appearance of the scanty flow she invariably suffers from a diarrhea, which I would look upon as reflex, as a menstrual hystero-neurosis of the bowels. This diarrhea begins some days before the period and ceases with the appearance of the flow.

She has been under treatment of various physicians, as well as homeopaths and female practitioners; has at times been treated as if suffering from hernia and had trusses applied; these, however, could be borne for a short time only and then greatly increased her suffering, as any pressure upon her abnormally sensitive ovary necessarily must do. She suffers from melancholia, and is scarcely able to drag herself about, displaying great lassitude, mental and physical; she has severe pains in the left leg as far as the knee. All her sufferings are increased when standing; she could never lie on the left side, the side of the displacement. Notwithstanding treatment of the many physicians consulted, her condition became constantly more unbearable, when finally she fell into the hands of Dr. T. E. Holland, at St. Mary's Hospital, who recognized an ovarian trouble and sent the patient to me.

Examination. — I found her an emaciated, unhappy looking being, with a care-worn, suffering look, with a brownish, unclean complexion, and with scarce energy enough to answer the questions asked. *The physical examination* showed no visible swelling in the left side, a very narrow and rigid virgin vagina with a small anteflexed uterus; the right ovary could not be felt, whilst the left was very distinct anteriorly, in the vesico-uterine fold, — sensitive, slightly enlarged, and easily moved. The lump of which I had heard so much was not then to be observed. I told the patient to return just before or during the menstrual flow; she did, at this time, drag herself down to my office, and then I saw a slight prominence a little above the external inguinal ring which was so exquisitely sensitive that I could barely pass my fingers over it externally, and was not permitted to make the attempt to seize it bimanually. I did, however, satisfy myself of the fact that no resistance was to be found in the region where I had before distinctly felt the ovary; hence there was no question in my mind but that the sensitive swelling in the left side was the displaced and engorged ovary. The inguinal canal was not open, but Dr. Hodgen, who kindly examined the patient, discovered some little weakness, a point of less resistance in the abdominal walls at the place of protrusion. I gave her a tonic for some time, and anodyne suppositories.

Well aware that no good could be accomplished by any treatment (replacing the displaced ovary was out of the question with this rigid virginal vagina) I attempted to build up her system preparatory to operating. She was taken to the Pius Hospital, where she was well cared for; tonics and a daily bath were administered, and on the 29th of April, 1880, four days after the cessation of the very scanty flow, I removed the offending organ with the assistance of Drs. Prewitt, Schenck, Nelson, Baumgarten, Henske, Scott, and Engelmann, Sr.

An incision two and two sixteenths of an inch in length was made in the *linea alba*, extending to within an inch of the symphysis; a few small vessels were clamped and the peritoneum opened to the extent of one and one eighth inches, precisely in the white line of cicatricial connective tissue which appears as the remnant of the vesical arteries. The anteflexed fundus was easily found with the index finger, and to the left and in front of it, by following the upper edge of the broad ligament, lay the smooth, scarcely enlarged, and displaced ovary. This was readily seized with the

curved dressing forceps, the mesovarium ligated with single braided silk ligature of moderate thickness, the ovary cut off and the pedicle dropped, after it had been ascertained that there was no oozing from its surface.

Although this left ovary was the offending organ, I at once passed my finger from the fundus along the right broad ligament in search of the other ovary, as has always been my custom; it was simply with a view of examining the condition of the organ, as I had not intended to remove it; but as I could not, in the hasty examination, anywhere detect the ovary, I at once removed my finger, an act which I have very seriously regretted since. A sponge was passed to the bottom of the pelvic cavity which showed the peritoneal surface perfectly clean, and the wound was, accordingly, closed with three deep sutures of the thickest silver wire obtainable, three quarters of an inch apart, and fastened with shot; four small superficial sutures of iron wire served to approximate the edges. The operation was performed with the usual antiseptic precautions, under carbolic acid spray, and lasted thirty-two minutes, the abdominal cavity being open twelve minutes. The temperature of the room was kept at 85° F. The *Lister* dressing was applied with the modification which I have been in the habit of making in all abdominal operations; that is, supplying the place of the stiff unyielding gauze by thick layers of soft pliable carbolized cotton. It may be of interest to state that the pulse was but 80 at the beginning of the operation; thirteen minutes later, previous to the opening of the abdominal cavity, it rose to 112, but fell to 80 at the time of ligation of the pedicle. It remained 70 while the abdominal cavity was exposed, but steadily rose until the end of the operation, when it again reached 88.

With regard to the after condition of the patient I may say that she recovered without any symptoms of abdominal tenderness or of inflammation, although she alarmed us all by a severe hysterical attack. Her stomach also gave a great deal of trouble; incessant vomiting followed the use of the chloroform and after this the morphine, which was given to allay pain and nervousness. The pulse, after the cessation of the morphine, always remained nervously accelerated, usually about 90. The temperature was at its highest on the fourth and fifth days after operation, when it was $99\frac{6}{10}°$; before and after, for some time, about 99°. On the fifth day I changed the dressing for the first time, for the purpose of

examining the wound, which I found perfectly sweet and clean and united by first intention; on the seventh day the sutures were removed, as firm union had been attained. The bowels were moved on the fifth day by repeated small injections of warm water and some laxative pills, but only a slight operation was produced and on the eighth day the patient fell into a profound hysterical condition with symptoms of syncope so that earnest interference was demanded. The bowels were, accordingly, freely washed with a copious supply of water from the fountain syringe, the stomach-tube being passed high up in the colon; this at once brought about a change in her condition, and was repeated with the greatest advantage several times within the next few days. Her weakness continued for some time on account of the delicate condition of the stomach, but as soon as she began to bear food fairly she improved rapidly, left her bed and rendered trifling assistance about the rooms and halls. The menses appeared scantily, with somewhat less pain than usual, early in June and then again towards the end of June or the first of July. The "lump" which had formerly given so much trouble was, of course, no longer perceptible, but she still complained of some uneasiness in the place where it had been; but more especially under the lower ribs in the left side, where she had also complained of great pain and an "internal lump," as she expresses it.

On August 16, three and one half months after the operation, I was called to see the patient on account of a severe attack of malaria, notwithstanding which she appeared in very fair condition. Her complexion and physique were greatly improved, her eyes were less restless and more open, and she was free from the suffering expression of face. She has taken a place, for the last month, as servant in a family, but is not yet able to do washing and ironing; she does all the other work, cooking, etc., for a family of twelve. The menses have not appeared since the last days of June.

Examination discloses the same condition of the uterus, which, however, with its surroundings was no longer sensitive; there was no trace of the ovary in the left side, no thickening even. I will candidly say that I was again unable to detect the right ovary, which had escaped me in the first examination and which I could not even find in the hasty exploration whilst I had free access to the peritoneal cavity.

CASE II. — *Anterior displacement of the right ovary, at times*

simulating beginning inguinal hernia; confirmed mental and nervous disturbance; treatment unsatisfactory.

Mrs. B. is a German, forty-six years of age, married since her twentieth year, but has never conceived; always delicate: when three years old was so severely strained in being passed out of a high window that blood came from her privates, and a physician who examined her soon after said that she was ruptured and ordered a truss. This she has worn off and on, although after the time of sexual development it gave her severe pain, and finally caused her so much discomfort that for the last six years she has adopted the view of those of her physicians who claimed that no sign of a hernia existed.

She has always suffered at the time of menstruation, both from general nervous irritability and from pelvic pain and backache — in short the catamenia were accompanied by an exacerbation of all those distressing symptoms which constantly haunted her.

When about twenty-one years of age Mrs. B. had a severe fall, coming down in a sitting posture. She herself supposes the coccyx to have been broken or dislocated, on account of the pressure and irritation of the rectum which she has since experienced; at all events, the origin, not only of this, but of all the more persistent and annoying features of her malady, date back to this fall, twenty-five years ago. Since this time her nervous symptoms have become decidedly more marked and a well-defined melancholia has developed, but aside from her mental troubles her greatest complaint has been the irritation and pain in the rectum.

She has been excessively nervous and irritable most of the time, has no affection for her husband, rather shuns him, seeks solitude and quiet, is intensely annoyed by noises or bright lights, by the rumbling of a passing vehicle or loud talking. The very sight, even the pictures, of certain persons or objects are distressing to her. This condition is accompanied by an exquisite cutaneous hyperesthesia, such that she cannot dress as is customary. All her garments must be very loose, and sometimes she must discard clothing entirely and merely wrap herself in a sheet. At the same time that slight contact, or such pressure as ordinary clothing produces, is exceedingly annoying and distressing, even when she cannot tolerate clothing at all, she sometimes experiences marked relief from firm pressure by the hand upon the displaced ovary, the pressure being applied upward and backward. Well known physicians in this country and upon the con-

tinent of Europe have treated this patient at various times. Scanzoni, after a careful examination, assured her that she was free from any uterine ailment and apparently deemed her troubles imaginary, as others had done; at least he did not undertake the treatment of the case, or advise any course of treatment beyond the usual watering-places.

In May, 1878, Mrs. B. came to St. Louis and placed herself under my care. I found her a peculiar, nervous, careworn woman, suffering greatly with pelvic pains of various kinds, insomnia, and nervous and mental troubles, all of which were augmented at the time of the period. She claims to have passed entire nights on her knees, but the easiest position which she could assume, and the one in which I most frequently found her, was semi-recumbent, in dorsal decubitus, back well supported, feet high, legs somewhat flexed. She complains of a constant discharge of mucus and saliva from the stomach and mouth, tolerates but small quantities of food at a time and only the lightest and most digestible, complains of bloating and distension of the stomach, an annoying pruritus, and a sense of fullness of the head, which is only relieved by persistent rubbing of the forehead, which is followed by a copious discharge of mucus.

At times there is an annoying and painful swelling in the right groin, which makes its appearance either at the time of the menstrual congestion when the right leg is sensitive, stiff, and exquisitely painful in any attempt at locomotion; or in the intermenstrual period when this lump may be developed by physical exertion, standing or walking.

No hernia, not even an enlargement of the inguinal ring can be detected; the rectal symptoms were such that I suspected fissure of the anus, or possibly an ulceration of the rectal mucosa.

Physical examination revealed enlarged and discolored nymphæ, suggestive of masturbation, a narrow, rigid vagina, and a retroverted, slightly enlarged uterus, with conical cervix and narrow os; the right ovary was distinctly and easily felt anterior to the womb, sensitive, but little, if at all, enlarged; examination was very painful, and the introduction of the sound to the fundus caused great rectal suffering; the rectum itself was, however, free from any changes. The left ovary was not dislocated but also hyper-sensitive, and after firm pressure had been made upon it she suffered considerable pain for several days in the left thigh, and that leg dragged in walking.

I could discover no decided pelvic disturbance beyond the anterior displacement of the right ovary, which I saw only a few times as it protruded like a nut-sized tumor beneath the abdominal wall.

After several months of observation, of mild local and constitutional treatment, under which my patient at first seemed to improve, I was obliged to send her home, with the knowledge that nothing could be done for her unless she would submit to the removal of the dislocated ovary, which I considered the source of the mischief; and this operation I could not even conscientiously urge as she was so near the natural menopause; and, moreover, as the nervous symptoms had persisted for so long a time that I hardly dared hope that they would be relieved, or even materially ameliorated, by removing the original cause.

I heard nothing more from Mrs. B., but frequently thought of the case, as I had recently obtained a beneficial result, in a similar case, by the removal of the ovary (Case I.). Being myself unable to visit the patient, my friend, Dr. E. M. Nelson, kindly volunteered to see her for me at her home in an adjoining State. He found her in very much the same condition, but, being relieved from household cares, and living in a more quiet and pleasant part of the town, she is better able to avoid all disagreeable influences and impressions, and therefore her suffering is somewhat alleviated, though possibly this may be accounted for by the approach of the menopause, as the menstrual flow, heretofore always regular, ceased in December last, to reappear with much less pain than usual in July and August, the irregularity and changed appearance seeming to indicate the approach of the physiological termination of the catamenia, which would contraindicate an artificial establishment of the change of life or even the removal of the one no longer active ovary. Dr. Nelson could discover no enlargement in the groin, and did not even distinctly feel the displaced ovary, which may be accounted for by the almost completed involution of these organs and the consequent atrophy. This her own sensations would seem to indicate, as she says that it seems to her as if there were a lump attached to an elastic cord, which sometimes allows it to descend, and at other times, under precisely similar conditions, draws it up entirely out of reach. The presence of this lump no longer seems to bear that distinct relation to the catamenia which was previously observed, nor can it be brought down, at all times, as before, by standing or straining.

I now consider it a *noli me tangere.*

CONCLUSIONS.

We have here two cases of anterior, intra-pelvic displacement of the freely movable ovary: apparently some enlargement in the one case, as proven upon its removal, but very little, if any, in the other. In each case we find a severe menstrual exacerbation of all symptoms, and it is only at that time of physiological congestion of the pelvic viscera, or after long-continued standing, when influenced by gravity, that the ovary becomes recognizable as a sensitive swelling beneath the abdominal parieties. In both these cases we are dealing with nulliparæ; in the one, with a virgin, with a small, anteflexed uterus, and a most unusual rigidity of the parts; the other patient is married, sterile, with a retroverted uterus, small os, and rigid vagina, with still well-preserved rugæ. In the first case, the cause of the ovarian displacement is plain; it is not the anteflexion, which existed for years, as is evinced by the preëxistent dysmenorrhea, from which the patient suffered before the fall, before the pain or enlargement in the side had appeared. The occurrence of an ovarian displacement, is marked by the appearance of that sensitive "lump," and was caused by a jar received in a fall from a second-story window; the direct cause of this displacement, then, is evidently the concussion received from the fall, which may, however, have been aggravated and furthered by an anterior displacement of the uterus. In Case II. it is not possible to determine with certainty the cause of the displacement; it may have been congenital, yet we have the history of an insult in early childhood which seems to have caused a hernia, of which, however, no trace is now left; then the patient tells of a fall at a later period, in her twenty-first year, which was followed by increased suffering, — and to this I am inclined to trace the accident.

The consequences of the displacement in both cases are such that it will be safe to conclude that anterior displacement, of even a healthy ovary, is not a lesion which can be lightly considered, as some say. Although it may be an

open question as to whether enlargement of ovaries is usually primary or secondary, we certainly have a case here in which the enlargement, if any existed, was just in its beginning and secondary to the displacement. To quote Dr. Mundé: "The peculiar position of the ovary, inclined posteriorly to the plane of the broad ligament, and the shallowness of the vesico-uterine pouch, explains why it rarely prolapses anteriorly with ante-displacement of the uterus." Nor did it so prolapse in this case until meeting with the additional impulse from the concussion received in the fall. The symptoms are, of course, somewhat different from those which appeared in the patients suffering from lateral or retro displacement of the ovary: we miss that pain in defecation which is so characteristic in those cases, sectralgia and irritating neuralgic pain in the groins and thighs; so, also, the numb, sickening pain during coition, which is due to pressure upon the ovary, as is also the pain in defecation and walking. There is, however, great lassitude, mental and physical, irritability, nervousness, pain in the legs as far as the knee on the affected side, inability to lie upon that side, pelvic pains, and headaches. In both the cases observed by me a decided mental disturbance existed; being a marked melancholia, long established in one case, incipient in the other, and, so far as I am able to judge, two and one half months after the operation, decidedly relieved by the removal of the displaced ovary. In the other, the suffering has been of so long duration, the nervous and mental symptoms have become so deep seated, that I feared to undertake the removal of the organ, dreading that, even if successful in the operation, it would not benefit the shattered constitution of the sufferer.

It seems that mental disturbances are wont to follow ovarian displacement, at least I see in Dr. Mundé's paper a reference to an article upon prolapsus of the ovaries by Drs. Storer and Warner, published in the "Journal of the Gynecological Society of Boston," [1] in which some cases of prolapse of the ovary, bound down by adhesions, are related;

[1] Volume vi., May, 1872, page 322.

in all the cases obstinate reflex insanity was reported; the autopsy, in one, revealed a chronic endometritis and downward displacement of one ovary. Dr. Storer said that in this case the relation of the cause and effect, ovarian disease and insanity, was unquestioned, in which statement he was supported by several other gentlemen who had seen the patient.

A few words with regard to the *operation for the extirpation of the ovary, Battey's Operation.* I will speak merely with reference to the case before us, as I have in former papers fully expressed my view upon this subject, and have seen no reason to change the position taken in the papers published by me in 1878.[1] What I have said in the latter paper with regard to this operation holds true in this individual case, namely: "That we may look hopefully to Battey's operation as a last, a desperate, but not unpromising resort in those distressing cases of female suffering, dependent upon ovarian disease or menstrual congestion, which all treatment has failed to relieve."

Before discussing this individual operation I would cite from the paper already mentioned the indications for the operation, and the rules governing it as then laid down by me: —

"INDICATIONS FOR THE OPERATION.

"The operation is indicated only in certain grave cases of chronic uterine or ovarian disease, accompanied by intense suffering or uncontrollable reflex symptoms, in which all means of treatment in the hands of competent physicians have failed, so that the unhappy patient must drag out the miserable existence of a helpless and constantly suffering invalid, if she does not lose her reason or succumb to the tortures of the disease; it may then be undertaken, I., in

[1] "The Difficulties and Dangers of Battey's Operation," published in the *Transactions of the Am. Med. Association*, 1878: and in the *American Journal of Obstetrics*, for July, 1878, vol. xi., No. 3, "Battey's Operation, Three Fatal Cases, with some Remarks upon the Indications for the Operation."

order to establish the menopause; or, II., to remove the offending organs, frequently for both purposes.

"I. *To establish the menopause,* in cases of uterine, ovarian, or reflex suffering dependent upon, or greatly intensified by the menstrual congestion.

"(*a. Ovaries not Diseased — Normal Ovariotomy Proper.*)

"For this purpose the operation is indicated: —

"1. In menstrual hystero-neurosis, with cerebral, pulmonary, gastric, or other reflex symptoms, associated with and dependent upon the monthly period of pelvic congestion.

"2. In dangerous hemorrhage, menorrhagia, or suffering caused by uterine tumors not suitable for removal.

"3. By the absence of uterus or vagina, or other malformations of the sexual organs, when accompanied by distressing menstrual molimina.

"(*b. Ovaries Diseased.*)

"4. In ovarian dysmenorrhea and uterine or ovarian suffering limited to the catamenia, or greatly increased during the menstrual period.

"II. *To remove the offending organs,* when they are the seat of constant pain, independent of the monthly flow, although generally increased by it; these are cases of chronic ovaritis and ovaralgia with pelvic pain, which are marked by the most fearful and continued suffering, which is only intensified during the catamenia; the ovary itself is always diseased, generally in a state of cystic degeneration, and the object of the operation is not mainly to establish the menopause, but to remove those organs which, by their affection, are causing local suffering, and are involving in disturbance the entire nervous system.

"In *ovarian hernia* the healthy ovary may be removed as the offending organ, but this is a class of cases not here to be considered.

"GENERAL RULES GOVERNING THE OPERATIONS.

"I. *Operate by the abdominal section;* the operation can always be completed and the ovaries removed entire, whatever be the condition of the pelvic organs; a wider scope is given to the fingers and the instruments of the operator than through the vaginal incisions, and in the worst cases, when touch fails, the eye may help.

"As a rule, the incision is made in the *linea alba*, but in case the ovaries approach the abdominal walls, and can be distinctly felt beneath them, the incision may be made at any point directly over the ovary; thus in case of hernia or of uterine tumors. The semilunar incision in the side, which I would term the direct lateral method, is inferior to the median, although in closer proximity to the organ to be reached.

"II. *The vaginal operation is admissible only in cases of displacement upon the vagina.* Although the ovaries have been frequently and successfully removed by this method, which is decidedly less dangerous than the abdominal section, it is an uncertainty: almost all those cases in which Battey's operation is indicated, are cases of chronic pelvic suffering, and disease in which we find a pathological condition of those viscera, especially the ovaries, which are generally bound down by adhesions. Dr. Sims says: 'If we are sure that there has been no pelvic inflammation, no cellulitis, no hematocele, no adhesion of the ovaries to the neighboring parts, then the operation may be performed by the vagina, but not otherwise.'

"It seems to me impossible to determine these conditions satisfactorily in all cases, and if we remember that bold and skilled operators and able diagnosticians, such as Marion Sims and T. Gaillard Thomas, have attempted this operation by the vagina and have failed, and that its originator, Robert Battey, had, in four instances, been unable to remove the ovary entire, and was obliged to leave a part of the degenerate and adherent organ in the pelvis, thus subjecting the patient to the dangers of the operation without

affording relief, we cannot but consider the success of a vaginal operation as a piece of good luck.

"The operator who seeks to remove the ovaries by this method must be very positive in his diagnosis, or he must trust in Providence for a favorable condition of the pelvic viscera.

"III. *Remove both ovaries.* The removal of one ovary may almost be said to be needlessly subjecting the patient to the dangers of the operation, even if that one ovary is the seat of pain, and if that one ovary only is diseased; two successful cases are known in which complete relief followed the removal of one ovary (Sims, Sabine), but generally we find the disease recurring in the other ovary, even if temporary amelioration be obtained. Dr. Sims justly says that Battey's operations and his own would have presented very different results if they had not departed from the theory which Dr. Battey laid down in the very beginning, viz., to bring about a change of life by extirpating both ovaries.

"In the cases of ovarian hernia, the prolapsed ovary is removed, one or both as the case may be, and the incision is made directly over the disturbing organ."

I insist, more earnestly than ever, upon the superiority of the abdominal section, the incision in the *linea alba*, which is not only the superior method, but the only method to be followed with certainty of a perfect result unless a movable, non-adherent, and dislocated ovary lie directly beneath the abdominal or the vaginal walls, when it is justifiable to make the incision directly over the organ.

Although the vaginal method has been practiced with success by expert operators, it has happened too often that either the operation had to be abandoned and the abdominal route taken, or it was imperfectly performed and portions of the ovarian tissue left *in situ;* this is reason sufficient to abandon it, except in rare cases.

The indication for the operation in this case was removal of the offending, the displaced, diseased, and pain-giving left ovary. I would call attention to the fact that, notwith-

standing this ovary could be distinctly felt beneath the abdominal wall in the left side, I did not cut down directly upon it and operate by the semilunar incision in the side or by the direct lateral method as, at one time, Hegar earnestly advocated, but I followed the course adopted by myself in 1878, to operate by the abdominal section ; as I had then found by repeated operations upon the cadaver that the lateral or direct method was a much more difficult and unreliable one and, although then advocated by Hegar, he now urges the abdominal section in all cases even where we are apparently nearer the dislocated ovary by the lateral or direct method.

Although the operation was performed for the removal of this one dislocated offending ovary I have never ceased to regret my disregard, in this operation, of the opinion held by me and advocated from the first, that the removal of *one* ovary might almost be said to be needlessly subjecting the patient to the dangers of the operation, even if that one ovary is the seat of pains and if that one ovary only is diseased. I removed the one offending ovary in this case, and have relieved the girl of that menstrual exacerbation and her suffering, that intense suffering which was caused by the congestion of the displaced ovary. Her nervous and mental condition has been improved, but she is not completely relieved, as I should have expected her to be had I removed both ovaries from this hysterical, nervous girl, who is now bound still to suffer menstrual pain from the anteflexed uterus and the nervous symptoms consequent upon her diseased and sickly sexual organization.